WHAT IS CLAIMED IS:

1. An apparatus for turning pages of a document, comprising:

a base for supporting the operative assemblies and components of the apparatus;

a cradle assembly for supporting the document therein, said cradle assembly being attached to the base and including a first cradle half and a second cradle half, wherein each of the cradle halves further includes a cradle base joined to a book support plate by a linkage and a drive motor operatively coupled to the book support plate, such that operation of the drive motor displaces the book support plate in an arcuate manner relative to the cradle base; and wherein the support plates of the first and second cradle halves are joined by a flexible web of material; and

a page turning assembly for moving the pages to be viewed in seriatim.

2. The apparatus of claim 1, wherein each cradle half further comprises at least one cover clamp.

3. The apparatus of claim 1, wherein the page turning assembly further comprises a pivotable and translatable vacuum head for attaching to an open page and turning the separated open page.

4. The apparatus of claim 3, wherein the pivotable vacuum head is pivoted once in contact with the open page so as to assist in the separation of the open page from a plurality of adjacent pages.

5. The apparatus of claim 4, wherein the angle at which the pivotable vacuum head is pivoted so as to assist in the separation of the open page is variable in accordance with the type of paper stock used for the page.

6. The apparatus of claim 3, wherein the page turning assembly further comprises a page fluffer for separating an open page from an adjacent page.

7. The apparatus of claim 1, wherein the page turning assembly further comprises an air knife to separate a top page from adjacent pages so as to avoid turning of multiple pages at one time.

8. The apparatus of claim 1, further comprising an optical assembly to permit viewing of open pages of the document.

9. The apparatus of claim 8, wherein the optical assembly further includes a camera suitable for acquiring an image of at least one open page of the document and a display, connected to receive an output of the camera, where the image may be viewed.

10. The apparatus of claim 1, further comprising an optical assembly including:

a camera;

lighting directed to illuminate open pages of the document; and

sensing means to detect the location of the open pages of the document relative to a field of view and focal plane of the camera.

11. The apparatus of claim 10, wherein said sensing means to detect the location of the open pages of the document is further employed to indicate the boundary of at least one edge of a page and where a signal from said sensor is employed to automatically control cropping of an image produced by said camera.

12. The apparatus of claim 11, further comprising a controller for controlling the operation of the apparatus in accordance with pre-programmed instructions, and wherein said sensing means to detect the location of the open pages of the document is capable of sensing a material extending beyond a page edge, and to signal the controller in response to the sensing of the material, thereby causing the controller to alter an operational cycle of the apparatus.

13. The apparatus of claim 3, further comprising a controller for controlling the operation of the apparatus in accordance with pre-programmed instructions, and wherein said sensing means to detect the location of the open pages is capable of sensing the opacity of the page acquired by the vacuum head and providing a signal indicating the opacity to the controller, wherein the controller determines if multiple pages have been acquired by the vacuum head as a function of the opacity signal.

14. The apparatus of claim 10, wherein the optical assembly further comprises at least one mirror, located in an optical path between an open page and the camera, to direct an image of the open page to the camera.

15. The apparatus of claim 1, further comprising an open page securing and flattening means, said page securing and flattening means including a first page clamp and a second page clamp, each clamp being retractable prior to page turning and deployable prior to page imaging.

16. The apparatus of claim 1, further comprising page position adjustment means, said page position adjustment means including at least one positioning means operatively joined to at least one half of the cradle assembly, wherein the operation of the positioning means translates the cradle assembly, and the document held therein.

17. The apparatus of claim 1, further comprising a plurality of converging air jets, positioned adjacent and above an open page so as to cause the page to remain in a fixed and flattened position when air is directed toward the page through said air jets.

18. An apparatus that enables acquisition of page images, comprising:

a base for supporting the operative assemblies and components of the apparatus;

a cradle assembly having a first cradle half and a second cradle half; and

a page turning assembly for presenting the pages to be imaged seriatim, said page turning assembly including a pivotable and translatable vacuum head for attaching to a page and turning the page;

wherein each of the cradle halves of the cradle assembly comprises a cradle base joined to a book support plate by a linkage, each cradle half further having a clamp, and a drive motor suitably operatively coupled to the book support plate, such that operation of the drive motor displaces the book support plate in an arcuate manner relative to the cradle base; and

wherein the support plates of the first and second cradle halves are joined by a flexible web of material

19. The apparatus of claim 18, further comprising an optical assembly comprising at least one camera, lighting directed at the open pages of the, sensing means to detect the location of open pages relative to the field of view and focal plane of the at least one camera, and at least one mirror to direct the images of the left open page and the right open page to the at least one camera during an imaging cycle.

20. The apparatus of claim 18, further comprising open page securing and means having a first page clamp and a second page clamp, each clamp being retractable prior to page turning and deployable prior to page imaging.

21. The apparatus of claim 18, further comprising page position adjustment means further comprising at least one motor operatively joined to at least one half of the cradle assembly, in order to translate the cradle assembly and the pages held therein in a substantially horizontal direction.

22. The apparatus of claim 18, further comprising page bifurcation position adjustment means further comprising optical sensing means for sensing the position of the page bifurcation of a pages held within the cradle assemble of the apparatus.

23. The apparatus of claim 18, further comprising page edge detection means further comprising optical sensing means for sensing the position of the edge of a page as it is acquired by a vacuum head and turned by a page turning assembly.

24. The apparatus of claim 18, wherein the page turning assembly further comprises a page fluffer for separating a page from adjacent pages.

25. A method of reading a document comprising the steps of securing the document in a cradle assembly, the document being opened to a selected first and second pages; adjusting the position of the document such that at least one of the first and second pages are entirely within the field of view of at least one image acquisition device; holding the at least one page in position for a period of time; displacing at least the outer edge of the second page from contact with subsequent adjacent pages; temporarily placing a vacuum head proximate to at least a portion of the surface of the second page; acquiring the second page with the vacuum head device; turning the second page about its line of contact with the binding of the book

until the printed surface of the second page is substantially congruent with the printed surface of the first page; and releasing the second page from the vacuum head.

26. The method of claim 25, further comprising the step of acquiring an image of the first page of the document.

27. The method of claim 26, further comprising the step of acquiring an image of the second page of the document.

28. A method of reading a document comprising the steps of securing the document in a cradle assembly, the document being opened to a selected first and second pages; flattening at least one of the first and second pages of the document, securing at least one of the first and second pages of the document with at least one page clamping device such that said at least one page is within the field of view and focal plane of at least one image acquisition device; adjusting the position of the document such that at least one of the first and second pages are entirely within the field of view of at least one image acquisition device; holding the at least one page in position for a period of time; releasing the page clamping device; displacing at least the outer edge of the second page from contact with subsequent adjacent pages; temporarily placing a vacuum head proximate to at least a portion of the surface of the second page; acquiring the second page with the vacuum head device; turning the second page about its line of contact with the binding of the book until the printed surface of the second page is substantially congruent with the printed surface of the first page; and releasing the second page from the vacuum head.

29. The method of claim 28, further comprising the step of acquiring an image of the first page of the document.

30. The method of claim 28, further comprising the step of acquiring an image of the second page of the document.

31. A cradle apparatus for adjustably supporting a document as pages of the document are turned, comprising:

a first cradle half and a second cradle half, wherein each of the cradle halves further include a cradle base joined to a book support plate by a linkage;

a drive motor, operatively coupled to the book support plates, such that operation of the drive motor displaces the book support plates in an arcuate manner relative to the cradle base; and

wherein the support plates of the first and second cradle halves are joined by a flexible web of material.

32. The apparatus of claim 31, further comprising an open page securing and flattening means, said page securing and flattening means including a first page clamp and a second page clamp, each clamp being retractable during turning of document pages.

33. The apparatus of claim 31, wherein each cradle half further comprises at least one book cover clamp.

34. The apparatus of claim 31, further comprising page position adjustment means, said page position adjustment means including at least one positioning motor operatively joined to at least one half of the cradle assembly, wherein the operation of the positioning motor translates the cradle assembly, and the document held therein, in a substantially horizontal direction.

35. An apparatus for clamping a page of a supported document, comprising:

a pivot block;

a pull rod; and

at least two spreaders, hingedly affixed to one another and compliantly coupled, with links, to the pull rod, wherein when the pull rod is displaced downwardly toward a page bifurcation, the spreaders are brought into contact against a verso page and a recto page on either side of the bifurcation and hold the verso and recto pages in position.

36. The apparatus of claim 35, where said clamping apparatus may be moved between a deployed state and a retracted state, to permit the turning of pages of the document.

37. The apparatus of claim 35, where said clamping apparatus may pivoted away from an operational position to permit a document to be placed into position for clamping.